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Most faculty members' decisions about when to retire probably won't be affected by the elimination of the mandatory-retirement age in 1994, a study has found: Page A13.

EDUCOM members trying to create a peer-review process for software have found it isn't easy: Page A13.

The more college officials learn about a plan to require national service in return for federal student aid, the less they like the idea: Page A19.

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Buffeted by the 1987 stock-market crash, university endowments grew by only 1.3 per cent in 1987-88, a study has found: Page A27.

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Most blacks at the predominately white U. of Colorado at Boulder feel isolated and unhappy: Page A33.

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Administrators' Pay Up 5.3 Pct. in Year, Outpacing Inflation

By CAROLYN J. MOONEY

Salaries of higher-education administrators, which failed to keep pace with inflation in academic 1987-88, rebounded by the start of the current academic year with an average 5.3-per-cent increase, a survey of 1,268 institutions has found.

According to the survey, conducted annually by the College and University Personnel Association, administrators fared better than they had the previous year, when the average salary increase, 3.3 per cent, fell below the national inflation rate for the first time in five years.

Administrators at private institutions did especially well, with average 1988-89 salary gains of 6.7 per cent, compared to 2.5 per cent for the previous year. Salary increases at public institutions also rose—to 4.9 per cent from 4.2 per cent.

The Consumer Price Index rose 3.9 per cent in the same period.

In the 11 years since the personnel association began conducting the survey on an annual basis, administrative salaries have

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Highest-Paid Administrators on Campuses This Year

Medical dean	$143,200
Medical-center chief	109,700
Dentistry dean	103,629
Law dean	100,500
Public-health dean	95,299
System head	95,242
Veterinary dean	92,340
Pharmacy dean	83,500
Institution head	80,000
Architecture dean	76,400

COLLEGE AND UNIVERSITY PERSONNEL ASSOCIATION

Bush Stresses Education, Science in His First Budget; Asks Increases Beyond Those Proposed by Reagan

Role of science adviser to be upgraded; black colleges singled out

By COLLEEN CORDES and ROBIN WILSON

WASHINGTON

President Bush last week stressed education, science, and technology in his first budget recommendation to Congress.

He proposed that the amount President Reagan had requested for education in fiscal 1990 be increased by $441-million.

"I've said I'd like to be the 'Education President,' " he told a joint session of the Senate and House of Representatives, "and tonight I'd ask you to join me by becoming the 'Education Congress.' "

Most of the new money for education would go to improve elementary and secondary schools. Some would be earmarked for historically black colleges.

Mr. Bush did not propose increasing support for Pell Grants and other federal student-aid programs beyond the modest raises proposed by President Reagan.

For federal science and technology programs, Mr. Bush made few significant changes in his predecessor's budget proposals. Mr. Reagan had called for increases in many areas, particularly for several big-ticket projects.

Excerpts from sections of President Bush's budget documents devoted to education: Page A25.

Mr. Bush also proposed that the status of his top science adviser be upgraded to that of Assistant to the President, with direct access to the Oval Office. A wide range of groups representing scientists, engineers, and businesses had urged Mr. Bush to make that change.

The President also renewed his pledge to set up "as soon as feasible" a Council of Science and Technology Advisers, to be made up of leading scientists, engineers, and business executives to help develop federal science policy.

Mr. Bush also endorsed Mr. Reagan's request for a 14-per-cent increase for the National Science Foundation, which would keep that agency on track in its effort to double its budget in the next few years. And he seconded Mr. Reagan's proposal to increase spending by the National Institutes of Health by 3.6 per cent.

The new President's budget, in general, was greeted with approval by college officials, who had been waiting to see how Mr. Bush would reconcile his campaign promises to increase spending on education and

Continued on Page A25

Critics and Defenders of Admission Tests Eye Court's Limit on Use

By JEAN EVANGELAUF

The use of college-admissions tests is undergoing new scrutiny in light of a federal judge's ruling that the New York State Education Department stop awarding merit scholarships solely on the basis of scores on the Scholastic Aptitude Test.

The ruling came this month in a lawsuit brought in November by 10 female high-school seniors and two women's groups, who charged the department with sex discrimination because of the way it awards $40-million a year in grants.

The average S.A.T. score of females is about 60 points lower than that of males, and the lawsuit said that using the scores had a "disparate impact" on females, who are less likely than males to receive scholarships.

In his opinion, Judge John M. Walker of the United States District Court in Manhattan ruled that the practice of relying only upon S.A.T. scores in awarding scholarships was discriminatory because it "deprives young women of the opportunity to compete equally for these prestigious scholarships in violation of both Title IX

Continued on Page A32

Math Professors Turn to Writing to Help Students Master Concepts of Calculus and Combinatorics

By JUDITH AXLER TURNER

When the United States sent a space probe out beyond the solar system, it attached a plaque inscribed with pictures and mathematical symbols and formulas, in the belief that such notations are a universal form of communication.

But back on earth, in the United States at any rate, mathematics professors are learning that English, not the language of mathematics, works best for most undergraduates.

Journals, Papers, and Essay Questions

"Students better understand the language of mathematics through a language in which they are already fluent," says Marcia Birken, an assistant professor of mathematics at the Rochester Institute of Technology.

Ms. Birken is one of a growing number of mathematics professors who are asking their students to keep journals, write papers, and answer essay questions on tests. They are adding reading and writing to arithmetic—not to mention calculus, discrete mathematics, topology, algebra, group theory, complex analysis, combinatorics, and statistics.

Some of the professors were pushed into requiring writing in their classes by "writing-across-the-curriculum" efforts at their colleges—attempts to reinforce writing skills by incorporating writing assignments into all courses. But most of those who are

Continued on Page A14

Practices of Scholarly Journals Come Under New Scrutiny

Journal editors are re-examining their roles because of concerns over science fraud and charges of bias in editorial decision making: Page A4.

MARGINALIA

We received an announcement from the U.S. Postal Service the other day, describing a workshop, to be held at San Francisco University, on improving campus postal operations.

The announcement was, as a note on its envelope pointed out, HAND DELIVERED.

■

The office of Child Care Services at the University of California at Irvine is presenting, on February 22, a workshop called "Communicating and Developing an Effective Relationship With Your Adolescence."

Thank goodness! (We had given up hope.)

■

Note on an order form from the American Hospital Association:

"Handling charges for all orders:

"Add $1.00 for all orders under $12.00. Add $225 for all orders $12.00 and over."

Everything costs a bit more, these days.

■

According to a flyer from Regis College, a professor from St. Michael's College, University of Toronto, with "doctorates in literature and in religious studies from Princeton, the University of London, and McMaster University," was to be on the Regis campus February 13 for a colloquium entitled:

HOW TO READ AND RIGHT:
DEALING WITH TEXTS
(OR: WHY STUDENTS–AND
FACULTY–CAN'T READ)

Physician, heal thyself.

■

But *we* should talk—given this passage in a recent "Sidelines" column in this newspaper:

"The ease with which people's opinions can be affected shows they don't completely understand the [National College Athletic Association's] rules and their potential affects, several association observers said."

Feelings run strong on some of them.

■

Item in the Marquette (Mich.) *Mining Journal*:

"MARQUETTE—Peggy A. Frazier, a member of the Ferris State University Board of Control, has been named chairwoman of a committee to search for a new university."

■

At the weekly meeting that the president of Rollins College holds with senior staff members, a participant listed the subjects to be covered in a personnel seminar.

Busy taking notes, the dean of the faculty asked later: "What was the fourth item in that seminar?" The answer: "Listening skills." [Laughter]

—C.G.

In Brief

Texas Tech U. Inoculates 4,500 in Measles Outbreak

An outbreak of red measles at Texas Tech University has led the institution to inoculate 4,500 students living on its campus.

Health officials reported about 100 cases of red measles at the university. The first appeared on January 31, and by February 3, the tally had reached 96, said Margaret M. Simon, a university spokeswoman.

Although the outbreak appeared to be under control last week, Ms. Simon said the campus is preparing for the possibility of a "second wave" of cases, since the incubation time is eight to ten days.

Meanwhile, one confirmed case of measles at the University of North Carolina at Chapel Hill triggered mass inoculations there last week.

Clerical Workers Strike at Adelphi University

Clerical workers at Adelphi University have gone on strike, demanding higher wages and better medical benefits.

The 276-member union affiliated with the Office and Professional Employees Union called the strike after seven months of negotiations with the university failed to produce a contract.

Officials at the university said student registration for the spring semester and other campus operations handled largely by the striking employees had not been disrupted.

A spokeswoman for the union, which was formed last spring, said its members were seeking a 12-per-cent raise over a two-year period. She said the union was also concerned with pay equity among its members.

A university official said the administration had offered the clerical workers—most of whom are women—a 17-per-cent raise over three years.

EPA Fines 4 Institutions in Maryland for Violations

The Environmental Protection Agency is asking four Maryland colleges to pay $700,000 in fines for what the agency said were violations of the regulations that guide the use of equipment containing polychlorinated biphenyls, or PCB's.

Agency officials announced the following penalties: Goucher College, $33,800; the Johns Hopkins University, $280,000; Morgan State University, $254,000; and Washington College, $150,000.

Inspections conducted at the four institutions in late 1987 and early 1988 found that they had failed to maintain records, conduct inspections, and register transformers containing PCB's with local fire officials. At no time were students exposed to PCB's at any of the institutions, agency officials said.

When the agency inspected the four institutions again, it found the problems had been corrected.

Officials at the colleges and the agency said all four institutions planned to appeal the fines.

AAU Admits 2 New Members

WASHINGTON

Rutgers University and the State University of New York at Buffalo last week became members of the Association of American Universities, an organization of leading research universities.

"Each of these universities is a dynamic institution making significant contributions not only in education but also in strengthening the nation's vital research base," said Robert M. Rosenzweig, president of the 89-year-old association.

The Washington-based organization is made up of 56 American universities and two Canadian universities that have been judged to have strong research programs and strong graduate and professional education programs.

The addition of Rutgers and Buffalo, the first new members since 1985, brings to 29 the number of public universities in the association. —T.J.D.

Blast Near Carroll College Causes Extensive Damage

An explosion last week caused extensive damage to buildings at Montana's Carroll College.

No serious injuries were reported in the blast, but damage to buildings was estimated to be in the millions of dollars.

The explosion occurred when 48 railroad cars went out of control as workers tried to replace a locomotive. The train rolled nine miles into Helena, Mont., where it collided with a three-locomotive unit on tracks at the edge of the college's campus.

Large pieces of debris, including three-foot-long parts of railroad cars, crashed through the roofs of several campus buildings.

"Every building at the college was damaged to some extent," said Francis J. Kerins, Carroll's president.

About 2,000 students and residents of nearby neighborhoods were evacuated in minus-36-degree weather. Electricity was lost to the college and half the [illegible]

Classes were suspend[illegible] for a week.

Syracuse Plans Memorial to Students in Air Crash

Syracuse University plans to build a memorial to the 35 students killed in last December's crash of Pan American World Airways Flight 103.

A semicircular limestone wall will be built at the main entrance to the university. It will feature a band of granite in which the names of the students will be engraved.

The victims—25 Syracuse students and 10 students from other institutions—were returning home after a semester in London.

University funds will be used to pay for the $500,000 memorial, which is expected to be completed by fall.

First Woman Is Named to Harvard Corporation

After 339 years of all-male membership, the Harvard Corporation has named Judith Richards

Recruiting Group Urges Blacks to Avoid Wis. Colleges

MILWAUKEE

A new college-recruiting association based here is encouraging black students in Wisconsin to attend traditionally black colleges and avoid the predominantly white campuses of the University of Wisconsin system, Marquette University, and other local institutions.

The Black College Recruitment Association, based in Milwaukee, was formed by a group headed by Matthew C. Stelly, editor of the Milwaukee *Courier*, a black newspaper. In an interview, Mr. Stelly said the association had begun a campaign, called "Divest Black Students From Wisconsin Colleges," to protest racism at the predominantly white institutions.

Initially, he said, the group's goal was to provide black youths at area high schools and at two-year colleges with information about historically black colleges. But, he added, after several "overtly racist" incidents at the University of Wisconsin and other campuses, the association adopted "a new emphasis."

MILWAUKEE COURIER

Matthew Stelly: "Go to a black college for your undergraduate degree, where you can be educated by blacks."

College Festival Planned

Mr. Stelly said the group's message to black students was: "Don't go to the University of Wisconsin or Marquette until they get their act together. Go to a black college for your undergraduate degree, where you can be educated by blacks."

Last month the association's first college-recruitment day attracted about 50 students and their parents. The group is planning a Black Colleges Festival to be held this month.

A spokesman for the University of Wisconsin system said the association's campaign would not harm the institution's plan to increase minority recruitment and retention at its campuses. The plan, "Design for Diversity," was announced last year.

"To the extent that they are trying to encourage students to go to college, who might possibly not go otherwise, that's a positive thing," said James E. Sulton, special assistant for minority affairs to the system's president.

"But to the extent that they are trying to encourage students not to attend our institution, that is a negative goal, and not one that I find promising."

The university system and its individual campuses began aggressive recruitment and retention campaigns in the past year. At the University of Wisconsin at Madison, Chancellor Donna E. Shalala introduced new financial-aid programs and other efforts to increase minority enrollment.

Stigmatization Feared

Mr. Stelly's association has criticized many of those efforts and said such financial-aid programs may stigmatize black students, causing them to be seen by white students as receiving preferential treatment.

Mr. Sulton said the university's efforts had been given short shrift by the association. "We've been sensitive to concerns that black students would be resented for getting special programs."

Paul M. McInerny, a spokesman for Marquette University, said it would continue its efforts to recruit minority students, despite the association's campaign.

"We have a good educational-opportunities program here for minorities and disadvantaged students that we think is a model in this country," said Mr. McInerny.

"I would hope the association doesn't hurt our recruiting efforts," he added. "I don't think it will, partly because of the cost factor—many students can't afford to go out of state."

Mr. Stelly said that if black students were determined to go to Marquette, the University of Wisconsin, or other local colleges, his association would not try to dissuade them. —DENISE K. MAGNER

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Administrators' Pay Up 5.3 Pct. in Year, Outpacing Inflation

Continued from Page A1

been subject to lean years as well as prosperous ones. From 1979 to 1983, for example, the increases at public or private institutions—and sometimes at both—failed to keep up with inflation. Over all, however, salary increases have grown at about the same rate as inflation over the past 11 years, according to an analysis by CUPA. Administrators' raises averaged 6.2 per cent a year during that period, while the national inflation rate averaged 6.3 per cent a year.

Salaries for Professors

Faculty salaries, by comparison, outpaced inflation in the past seven years, according to the annual survey conducted by the American Association of University Professors. The A.A.U.P.'s survey for the current academic year has not yet been released.

To allow institutions to make more precise comparisons between administrators' and faculty members' salary patterns, the new CUPA survey breaks salary information down into the same percentage ranges used in the A.A.U.P. survey, noted John M. Toller, personnel director at the University of Connecticut and one of the authors of the survey report. "By allowing easier comparison with faculty salaries, we're able to look at the whole [professional] employee population," he said.

The association's *1988-89 Administrative Compensation Survey* includes data on 168 job categories at 1,268 institutions. To provide for more accurate comparisons, the data are broken down by type of institution and by budget size. This year's 130-page publication includes two new job categories—director of enrollment management and director of minority affairs.

Among other survey findings:

■ When all types of institutions were considered, four categories of administrator earned median salaries that topped the $100,000 mark, compared to only one category in the previous year. The four included dean of medicine, where the median salary for all institutions was $143,200; hospital medical-center administrator, $109,700; dean of dentistry, $103,629; and dean of law, $100,500.

Mr. Toller speculated that salaries and raises for those positions reflected market demand.

When salary information was broken down to reflect different types of institution and budget size, however, there were additional job categories in which salaries topped $100,000.

■ Many of the job categories in which generous salary increases were reported in academic 1988-89 received smaller increases the previous year. Conversely, administrators who did well in 1987-88 averaged smaller increases in the current academic year. For example, the latest survey found that engineering deans at all institutions had received a 2.6-per-cent salary increase, compared with 8.1 per cent the previous year.

That, Mr. Toller said, is because institutions target different job categories for raises each year. So salary trends for a particular job must be analyzed over several years.

■ Among the administrators receiving generous salary increases were chief executives of systems, who earned median salaries of $95,242 and received raises averaging 12 per cent. The previous year, system heads on average received no salary increase.

Chief academic officers earned median salaries of $62,000 and received raises averaging 9.1 per cent.

■ Salaries for women and minority-group members continued to lag behind those of white males, but the fact that many female and minority administrators had spent less time in their positions helped account for some of the discrepancy. For example, salaries of minority administrators were, on average, 9 per cent lower than those of non-minority employees, but minority administrators had spent an average of 16 per cent less time in those jobs. Female administrators' salaries were, on average, 39 per cent lower than those for their male counterparts, but women had spent an average of 67-per-cent less time in those positions.

Copies of the *1988-89 Administrative Compensation Survey* are available from the College and University Personnel Association, 1233 20th Street, N.W., Suite 503, Washington 20036; (202) 429-0311. The price is $55 for CUPA members, $140 for nonmembers that participated in the survey, and $250 for all other non-members. The association also does custom-tailored salary studies for institutions that want to make comparisons with peer institutions.

Data from the CUPA survey of second-level administrators will appear in a future issue of *The Chronicle*.

Median Salaries of Chief Executive and Academic Officers for 1988-89

Type of institution by size of budget	Chief executive officer	Chief academic officer
Doctoral		
Up to $106-million	$107,000	$89,165
$106.1-million to $192.5-million	115,000	91,000
$192.6-million to $295.7-million	113,000	102,585
$295.8-million or more	126,225	114,500
Comprehensive		
Up to $21-million	$82,000	$61,800
$21.1-million to $32.9-million	90,000	70,391
$33-million to $54-million	89,700	73,500
$54.1-million or more	105,500	85,700
Baccalaureate		
Up to $6.5-million	$60,057	$44,290
$6.6-million to $10.7-million	75,083	53,000
$10.8-million to $17.1-million	84,423	60,000
$17.2-million or more	97,000	68,400
Two-year		
Up to $4.9-million	$58,000	$42,000
$5-million to $8.6-million	59,287	51,000
$8.7-million to $14.8-million	72,600	55,511
$14.9-million or more	80,250	62,848

SOURCE: COLLEGE AND UNIVERSITY PERSONNEL ASSOCIATION

FACT FILE: Median Salaries of Administrators, 1988-89

	All institutions	1-year change	Doctoral	Comprehensive	Baccalaureate	2-year
Executive						
Chief executive of a system	$95,242	+12.0%	$115,000	$96,495	$84,000	$75,000
Chief executive of a single institution	80,000	+7.4%	122,000	90,000	79,500	69,000
Executive vice-president	68,000	+9.7%	95,200	70,000	58,092	59,547
Academic						
Chief academic officer	62,000	+9.1%	98,004	73,000	56,400	53,573
Chief health-professions officer	70,000	+3.7%	121,000	—	30,000	45,315
Director, library services	41,561	+8.9%	73,000	49,045	34,000	37,208
Director, institutional research	42,700	+6.7%	54,768	45,000	35,000	40,449
Director, educational-media services	32,201	+6.3%	46,900	34,537	24,500	33,413
Director, learning-resources center	36,438	+5.6%	47,532	38,124	27,000	38,880
Director, international studies	44,032	+8.7%	53,004	42,600	32,385	—
Director, computer center, academic	43,000	+8.8%	66,022	43,892	36,333	38,670
Administrator, grants and contracts	42,350	+2.7%	57,550	40,000	29,500	37,136
Dean, architecture	76,400	+9.1%	80,850	—	—	—
Dean, agriculture	75,000	+5.6%	92,400	—	51,000	45,453
Dean, arts and letters	55,816	+8.4%	85,800	62,520	41,400	47,032
Dean, arts and sciences	60,732	+3.2%	86,000	64,094	51,510	47,061
Dean, business	60,050	+5.2%	92,703	68,760	48,167	44,990
Dean, communications	55,303	+9.4%	82,360	—	34,538	46,055
Dean, continuing education	46,580	+3.4%	68,600	52,950	37,450	43,304
Dean, dentistry	103,629	+6.9%	105,791	—	—	—
Dean, education	60,192	+4.7%	79,980	61,300	41,350	44,417
Dean, engineering	76,008	+2.6%	94,954	76,080	48,720	47,955
Dean, extension	52,850	+10.8%	82,480	56,350	27,810	43,675
Dean, fine arts	53,573	+2.5%	76,608	60,000	41,300	44,161
Dean, graduate programs	61,509	+3.3%	79,996	59,580	42,000	—
Dean, health-related professions	54,704	+5.2%	79,000	63,799	45,266	46,229
Dean, home economics	65,120	+8.5%	76,800	—	—	—
Dean, humanities	47,250	+5.5%	87,400	57,000	36,337	46,646
Dean, instruction	52,000	+7.6%	—	—	48,000	52,473
Dean, law	100,500	+5.8%	109,512	99,000	71,821	—
Dean, library and information sciences	60,274	+8.6%	73,500	53,776	—	—
Dean, mathematics	47,500	+10.7%	—	50,300	37,800	45,253
Dean, medicine	143,200	+19.3%	158,220	—	—	—
Dean, music	57,000	+5.4%	82,000	57,000	38,900	—
Dean, nursing	52,917	+0.7%	80,000	59,500	40,800	42,140
Dean, pharmacy	83,500	+7.7%	90,000	—	—	—
Dean, public health	95,299	+1.2%	—	—	—	—
Dean, sciences	51,905	+8.8%	94,428	62,370	41,721	46,026
Dean, social sciences	47,549	+6.6%	91,600	63,347	37,561	45,429
Dean, social work	68,500	+3.6%	80,250	61,454	36,441	—
Dean, special programs	42,042	+4.7%	—	49,613	40,000	41,443
Dean, undergraduate programs	52,356	+0.7%	70,000	52,356	44,000	—
Dean, veterinary medicine	92,340	+7.4%	93,720	—	—	—
Dean, vocational education	49,688	+5.1%	72,605	56,327	50,700	47,239
Administrative						
Chief business officer	58,187	+8.8%	87,700	68,500	53,000	50,762
Chief administration officer	60,200	n/a	81,113	66,976	47,547	48,277
Chief financial officer	53,000	n/a	76,751	57,165	46,642	46,800
Chief planning officer	55,000	+5.1%	62,000	52,759	48,828	52,641
Chief budget officer	48,275	+3.7%	56,320	45,280	40,000	40,442
Chief planning and budget officer	59,080	+6.4%	74,381	53,721	47,172	—
General counsel	63,410	+8.5%	72,391	58,000	45,674	—
Chief personnel and human-resources officer	44,000	+5.9%	61,100	44,321	33,600	42,000
Director, affirmative action & equal employment	42,540	+3.3%	48,000	39,492	32,900	39,508
Director, personnel and affirmative action	36,274	+2.9%	—	38,600	30,912	39,505
Director, computer center	45,563	+8.0%	67,100	52,140	37,500	39,450
Director, computer center, administrative	42,000	+0.5%	59,000	44,500	32,860	36,858
Director, information systems	50,000	+5.7%	61,000	49,500	38,230	47,599
Chief physical-plant officer	42,432	+11.7%	64,175	47,615	35,800	37,000
Comptroller	43,600	+6.3%	66,000	47,200	36,644	38,000
Director, accounting	35,304	+4.4%	47,100	35,516	28,600	31,437
Bursar	32,000	+3.1%	42,000	32,500	24,720	26,172
Director, purchasing	34,008	+4.7%	46,550	33,897	27,775	30,108
Director, bookstore	26,000	+8.4%	42,851	29,800	21,300	22,655
Director, internal audit	41,700	+5.3%	52,860	36,792	31,000	34,613
Director, auxiliary services	42,161	+3.1%	57,000	41,900	34,350	36,813
Director, campus security	31,800	+6.0%	45,208	33,926	24,600	28,668
Director, risk management and insurance	44,486	+4.5%	48,120	36,500	—	—
Administrator, hospital medical center	109,700	+14.0%	122,000	—	—	—
External affairs						
Chief development officer	54,000	+9.1%	76,962	60,000	50,000	41,221
Chief public-relations officer	37,550	+7.3%	60,000	42,462	30,840	33,400
Chief development and public-relations officer	60,010	+9.1%	88,541	63,587	49,650	39,900
Director, alumni affairs	31,080	+5.3%	50,000	32,796	27,000	24,600
Director, development and alumni affairs	42,350	+9.8%	62,616	42,935	39,705	35,148
Director, special and deferred gifts	40,000	+9.9%	52,500	43,000	33,800	—
Director, church relations	30,000	+11.6%	—	37,637	27,739	—
Director, community services	38,587	+5.6%	45,050	36,000	27,000	38,737
Director, publications	31,502	+4.0%	41,695	32,000	26,000	29,500
Director, information office	33,350	+6.7%	49,850	33,600	25,400	32,067
Director, news bureau	28,932	+3.3%	36,414	28,000	24,500	—
Student services						
Chief student-affairs officer	50,256	+6.6%	75,000	59,076	42,000	47,508
Director, admissions	39,500	+7.3%	55,650	43,299	36,180	35,500
Director, admissions and registrar	44,144	+5.6%	60,753	48,654	38,678	42,400
Registrar	35,400	+6.2%	51,600	38,640	31,100	32,448
Director, admissions and financial aid	43,548	+1.5%	—	49,104	44,000	35,000
Director, student financial aid	34,032	+5.6%	48,908	38,208	29,326	32,437
Director, food services	35,366	+8.8%	48,000	35,300	33,000	25,480
Director, student housing	30,625	+6.8%	49,000	33,500	24,200	26,000
Director, housing and food services	52,536	+8.6%	65,000	—	—	—
Director, foreign students	31,400	+5.0%	38,000	28,896	25,890	—
Director, student union	36,936	+8.2%	45,972	36,936	27,433	34,956
Director, student activities	28,530	+4.4%	39,510	31,229	23,100	30,086
Director, student placement	32,404	+8.0%	43,900	35,060	26,360	31,752
Director, student counseling	38,100	+9.5%	49,655	39,000	29,670	40,016
Director, student health services, physician	65,556	+3.5%	77,000	60,000	30,000	—
Director, student health services, nurse	25,524	+7.8%	35,368	28,044	20,840	27,025
Director, campus ministries	28,172	n/a	45,000	29,306	26,780	18,540
Director, athletics	44,350	+7.5%	74,500	50,685	37,450	37,575
Men's	42,034	+0.3%	—	44,414	37,000	—
Women's	32,600	−0.8%	45,531	34,000	27,555	—
Director, sports information	24,670	n/a	31,929	25,157	19,837	—
Director, campus recreation and intramurals	29,150	+4.6%	40,296	28,632	22,674	26,250
Director, enrollment management	44,168	n/a	—	53,000	40,000	31,000
Director, minority affairs	33,800	n/a	39,150	31,000	31,000	32,000

A dash indicates insufficient data.

SOURCE: COLLEGE AND UNIVERSITY PERSONNEL ASSOCIATION

Endowments Up Only 1.3 Pct. in Year, Ending Several Years of Big Increases

Continued from Page A27

the shifts in investments occurred before or after the market crash was not known.

One college registered a 17.4-per-cent return, while one at the other extreme had a 14.7-per-cent loss. The report did not disclose the identities of colleges to match the performance data.

The 1.3-per-cent overall return exceeded the Standard & Poor's index of 500 common stocks, which dropped 7.1 per cent in the period covered by the report.

The endowment return, however, fell short of two other measures, the 7.5-per-cent positive return of the Shearson Lehman Hutton Government/Corporate Bond index and the 6-per-cent return of 91-day Treasury Bills.

Loss in Purchasing Power

Adjusted for inflation, college endowments actually lost 2.4 per cent of their value in terms of purchasing power.

NACUBO, a national association of campus business and financial officers, has released the annual endowment survey every year since 1974. The study now includes most of the four-year colleges and universities with endowments of at least $1-million, officials of the association say.

For 1987-88, Cambridge Associates, a research company that advises colleges on investment managers, conducted the study.

A preliminary report of the study indicated that college endowments had grown by only 0.2 per cent (*The Chronicle*, December 14, 1988). The difference between growth rates in the preliminary and final versions of the study was due to the fact that the preliminary results examined the largest endowments, which grew at a slower rate than medium and small-sized funds, association officials said.

Wealth Is Concentrated

More than 95 institutions had endowments of $100-million or more, the study found, and all of the top 10 endowments were above the $1-billion mark.

Other findings of the survey:

- Of any investment, leveraged buyouts had the highest return, earning 20 per cent for the 21 institutions with assets in that area. Next highest were mortgage real estate, with a 10.7-per-cent return, and foreign bonds, with a 9.7-per-cent growth rate. Venture-capital projects had the worst rate of return, a negative 15.9 per cent. Domestic common stocks lost 7 per cent during the period.
- Endowment wealth was highly concentrated, with 25 institutions that have endowments of $400-million or more controlling 56 per cent, or $27.9-billion, of the total. The 94 smallest endowments, with assets of $25-million or less, totaled only $1.4-billion, or 2.8 per cent of the total endowment wealth.
- Despite the market tumble, colleges actually reduced their "spending rates"—the amount of endowment they spend for operating purposes. Public institutions spent 4.6 per cent of their endowments in 1987-88, compared with 5.3 per cent in 1986-87, while private colleges spent 4.8 per cent, compared with 5.6 in 1986-87.

A summary of the report on the study appears in the February issue of *Business Officer*, NACUBO's monthly magazine.

Copies of the complete report are available for $50 each, prepaid, for members of the association and $75 for others, from NACUBO at P.O. Box 91600, Washington 22090-1600.

Total Return* on Endowments, Fiscal 1988

	Periods ending June 30, 1988			
	1 year	3 years	5 years	10 years
All investment pools	+1.3%	+13.1%	+12.1%	+13.4%
By size				
$25-million and under	+1.5%	+12.0%	+11.2%	+12.2%
$25-million to $100-million	+1.3%	+13.3%	+12.1%	+13.1%
$100-million to $400-million	+0.8%	+13.6%	+12.5%	+14.1%
$400-million or more	+0.5%	+14.9%	+13.6%	+15.0%
By type of institution				
Public	+1.5%	+12.7%	+11.9%	+12.8%
Private	+1.2%	+13.3%	+12.2%	+13.6%
Comparative measurements				
Standard & Poor's 500 Index	−7.1%	+16.4%	+14.5%	+16.1%
Wilshire 5000 Stock Index	−6.0%	+15.2%	+12.8%	+16.4%
Shearson Lehman Hutton Government / Corporate Bond Index	+7.5%	+10.7%	+12.2%	+10.8%
Shearson Lehman Hutton Government Bond Index	+7.2%	+10.4%	+11.9%	+11.1%
Consumer Price Index	+3.8%	+2.9%	+3.2%	+5.9%

* Total-return rates represent change in market value, plus dividends and interest, for periods ending June 30, 1988, based on data for investment pools at 280 colleges and universities.

SOURCE: NATIONAL ASSOCIATION OF COLLEGE AND UNIVERSITY BUSINESS OFFICERS

FACT FILE: Value of 315 Endowments on June 30, 1988

1988 rank	Institution	Market value June 30, 1987	Market value June 30, 1988
1	Harvard University	$4,018,270,000	$4,155,778,000
2	University of Texas System	2,829,000,000	2,779,796,000
3	Princeton University	2,291,110,000	2,308,073,000
4	Yale University	2,098,400,000	2,055,871,000
5	Stanford University [1]	1,676,950,000	1,552,025,000
6	Columbia University	1,387,060,000	1,374,608,000
7	Texas A&M University System	1,214,220,000	1,178,641,000
8	Washington University	1,199,930,000	1,141,302,000
9	Massachusetts Institute of Technology	1,169,740,000	1,139,101,000
10	University of California	1,122,160,000	1,051,384,000
11	University of Chicago	913,600,000	897,826,000
12	Rice University	857,155,000	873,149,000
13	Northwestern University	802,670,000	827,341,000
14	Emory University	798,549,000	772,655,000
15	Cornell University	725,096,000	716,606,000
16	University of Pennsylvania	648,528,000	664,637,000
17	Dartmouth College	537,272,000	570,616,000
18	University of Rochester	556,908,000	535,807,000
19	New York University	503,957,000	521,686,000
20	Johns Hopkins University	534,809,000	508,399,000
21	Rockefeller University	542,765,000	503,283,000
22	Vanderbilt University	508,522,000	499,064,000
23	University of Notre Dame	456,099,000	463,502,000
24	California Institute of Technology	408,946,000	429,736,000
25	University of Southern California	401,171,000	403,685,000
26	University of Virginia	386,329,000	396,692,000
27	Duke University	363,706,000	392,893,000
28	Brown University	347,520,000	371,100,000
29	University of Michigan	287,539,000	346,337,000
30	Case Western Reserve University	341,160,000	331,183,000
31	Wellesley College	298,000,000	315,886,000
32	University of Delaware	293,033,000	301,224,000
33	Smith College	299,625,000	294,522,000
34	Southern Methodist University	301,732,000	293,119,000
35	Williams College	262,588,000	279,703,000
36	Swarthmore College	276,019,000	273,467,000
37	Grinnell College	226,783,000	270,658,000
38	Carnegie Mellon University	265,893,000	265,664,000
39	Wake Forest University	226,072,000	258,833,000
40	George Washington University	216,253,000	251,502,000
41	University of Cincinnati	254,300,000	250,248,000
42	Ohio State University	241,527,000	247,932,000
43	Wesleyan University	258,130,000	245,007,000
44	University of Richmond	228,761,000	242,289,000
45	Amherst College	248,354,000	242,243,000
46	University of Tulsa [3]	41,982,000	242,076,000
47	Pomona College	232,675,000	241,909,000
48	University of Pittsburgh	222,125,000	229,469,000
49	University of Minnesota	243,089,000	227,210,000
50	Loyola University of Chicago	231,739,000	225,947,000
51	Berea College	225,938,000	219,880,000
52	Baylor University [3]	219,802,000	217,684,000
53	Georgetown University	203,092,000	216,487,000
54	Vassar College	224,351,000	211,503,000
55	Oberlin College	203,673,000	203,600,000
56	Boston College [3]	176,394,000	200,153,000
57	Middlebury College	198,335,000	197,563,000
58	Tulane University	213,198,000	197,099,000
59	Lehigh University	181,259,000	192,834,000
60	Rensselaer Polytechnic Institute	190,835,000	184,164,000
61	Lafayette College	$170,406,000	$176,265,000
62	Kansas U. Endowment Association	144,662,000	172,342,000
63	University of Florida Foundation	160,450,000	170,560,000
64	Thomas Jefferson University	158,154,000	169,628,000
65	Mount Holyoke College	151,916,000	153,065,000
66	Georgia Institute of Technology	not reported	150,239,000
67	Carleton College	144,190,000	142,946,000
68	Pennsylvania State University	130,980,000	142,888,000
69	Boston University	159,192,000	142,483,000
70	Saint Louis University	140,883,000	141,317,000
71	Bowdoin College	not reported	133,039,000
72	University of North Carolina-Chapel Hill	127,282,000	132,154,000
73	Rochester Institute of Technology	135,656,000	130,853,000
74	Syracuse University	128,400,000	130,205,000
75	Occidental College	126,709,000	130,005,000
76	Academy of the New Church	124,606,000	127,984,000
77	University of Nebraska	144,946,000	127,616,000
78	Brandeis University	127,600,000	126,571,000
79	Washington State University	119,986,000	123,205,000
80	State University of New York	130,191,000	122,051,000
81	Mount Sinai School of Medicine	115,733,000	121,207,000
82	University of Minnesota Foundation	not reported	118,494,000
83	University of Washington	101,550,000	117,517,000
84	University of Alabama System [2]	75,816,000	117,041,000
85	University of Miami [3]	112,094,000	115,313,000
86	University of Missouri	107,628,000	115,048,000
87	Trinity College (Conn.)	115,324,000	114,230,000
88	Tufts University	110,795,000	112,201,000
89	Bryn Mawr College [3]	109,922,000	109,424,000
90	Colorado College	113,102,000	109,159,000
91	University of Wisconsin Foundation	86,113,000	109,092,000
92	Colgate University	104,313,000	107,174,000
93	Eartham College	111,304,000	106,601,000
94	Whitman College	90,295,000	104,624,000
95	American University of Beirut	110,717,000	104,224,000
96	Rutgers University	105,040,000	104,072,000
97	University of Illinois Foundation	102,309,000	102,908,000
98	Hamilton College	103,190,000	99,713,000
99	Cranbrook Educational Community	102,371,000	98,848,000
100	Southwestern University	101,406,000	97,299,000
101	Agnes Scott College	85,118,000	95,633,000
102	Washington and Lee University	93,400,000	90,527,000
103	Cooper Union	not reported	90,052,000
104	Loyola Marymount University	66,931,000	89,483,000
105	Worcester Polytechnic Institute	78,320,000	89,161,000
106	University of Wisconsin System	89,811,000	88,393,000
107	Mercer University	75,747,000	85,803,000
108	Union College (N.Y.)	87,063,000	85,547,000
109	University of the South	80,736,000	85,179,000
110	Virginia Military Institute Foundation	78,633,000	84,768,000
111	Virginia Tech Foundation	83,177,000	82,600,000
112	Radcliffe College	85,985,000	80,514,000
113	Claremont McKenna College	63,743,000	80,441,000
114	Bucknell University	82,394,000	80,293,000
115	University of Georgia and Foundation	not reported	80,063,000
116	Butler University [3]	85,213,000	79,999,000
117	University of Tennessee System	69,531,000	78,020,000
118	Santa Clara University	79,794,000	76,696,000
119	College of Saint Thomas	not reported	76,318,000
120	St. Lawrence University	71,580,000	71,888,000

Note: Table includes 315 institutions participating in the comparative-performance study by the National Association of College and University Business Officers.

[1] As of August 31, 1988
[2] As of September 30, 1988
[3] As of May 31, 1988
[4] As of April 30, 1988
[5] As of July 31, 1988

Continued on Following Page

New Publications on Philanthropy

BOOKS

Designs for Fund-Raising, by Harold J. Seymour (Fund-Raising Institute, Box 365, Ambler, Pa. 19002-0365; 220 pages; $29.95, plus $2.50 for shipping). An updated version of one of the first "how-to" textbooks on fund raising, originally published in 1966.

SPECIAL REPORTS

AIDS Funding: A Guide to Giving by Foundations and Charitable Organizations, edited by John Clinton (The Foundation Center, 79 Fifth Avenue, New York 10003; 133 pages, $75). Contains an analysis of grants awarded for AIDS projects, with information on grantmaking by foundations, corporations, and charitable organizations outside the United States.

American Grantmaking in South Africa: A Conference Report, prepared by Michael R. Sinclair and Janet L. Place. (Council on Foundations, 1828 L Street, N.W., Washington 20036; 48 pages; free). Discusses American grantmaking in South Africa, with essays written by Americans and South Africans.

Council on Foundations: 1988 Foundation Management Report, (Council on Foundations, 1828 L Street, N.W., Washington 20036). Includes information on compensation, benefits, personnel policies, and other foundation-management issues.

Study of Cause-Related Marketing, by Sheridan Associates and Zimmerman Associates (Independent Sector, 1828 L Street, N.W., Washington 20036; 60 pages; $10). Discusses cause-related marketing, attitudes toward the practice, and ways to improve its effectiveness.

ANNUAL REPORTS

Citizens' Scholarship Foundation of America, (1505 Riverview Road, P.O. Box 297, St. Peter, Minn. 56082). For the fiscal year ending June 30, 1988. Assets: $10-million. Scholarship Awards: $9.9-million.

The Charles Stewart Mott Foundation, (1200 Mott Foundation Building, Flint, Mich. 48502-1851). For the fiscal year ending December 31, 1987. Assets: $750-million. Grant payments: $32-million.

The Hitachi Foundation, (1509 22nd Street, N.W., Washington 20037). For the fiscal year ending March 31, 1988. Assets: $22-million. Grant payments: $1-million.

W. K. Kellogg Foundation, (400 North Avenue, Battle Creek, Mich. 49017-3398). For the fiscal year ending August 31, 1988. Assets: $3.1-billion. Grant payments: $122-million.

FACT FILE: Value of 315 Endowments—Continued

1988 rank	Institution	Market value June 30, 1987	Market value June 30, 1988
121	De Pauw University	not reported	$71,316,000
122	Hampton University	75,860,000	71,201,000
123	Haverford College	73,792,000	71,195,000
124	Franklin and Marshall College	61,164,000	70,593,000
125	Rhodes College	69,711,000	67,498,000
126	Pepperdine University [5]	65,091,000	67,460,000
127	Davidson College	66,931,000	66,906,000
128	Willamette University [1]	65,801,000	66,153,000
129	Colby College	68,540,000	66,105,000
130	University of Vermont	65,408,000	65,562,000
131	Lawrence University	60,867,000	65,387,000
132	Reed College	67,942,000	63,993,000
133	Furman University [1]	53,691,000	62,792,000
134	Kansas State University Foundation	not reported	62,699,000
135	College of Wooster	60,221,000	61,740,000
136	Mills College	not reported	60,133,000
137	Marquette University	57,376,000	59,534,000
138	College of William and Mary	56,157,000	59,342,000
139	Denison University	59,035,000	59,178,000
140	Simmons College	59,130,000	57,388,000
141	Ohio University	54,640,000	55,558,000
142	Berry College	63,442,000	55,151,000
143	University of Kentucky	not reported	54,986,000
144	Austin College	51,122,000	52,793,000
145	Indiana University	46,251,000	52,784,000
146	Goucher College	51,813,000	52,223,000
147	Fordham University	55,821,000	51,472,000
148	Harvey Mudd College	50,550,000	50,904,000
149	University of Nevada System	45,208,000	49,857,000
150	Ithaca College	49,056,000	49,490,000
151	University of Colorado Foundation	43,569,000	49,367,000
152	Scripps College	49,308,000	49,134,000
153	Auburn University [2]	47,987,000	48,955,000
154	Barnard College	not reported	48,739,000
155	University of California-Los Angeles Foundation	not reported	48,225,000
156	Rhode Island School of Design	51,600,000	47,949,000
157	Temple University	46,649,000	47,692,000
158	Virginia Commonwealth University	42,987,000	47,639,000
159	University of Arizona	48,080,000	47,371,000
160	Teachers College, Columbia University [1]	51,586,000	46,848,000
161	Philadelphia College of Pharmacy and Science	49,978,000	46,562,000
162	Albion College	43,059,000	46,211,000
163	University of Maryland	46,390,000	45,924,000
164	Michigan State University	not reported	45,552,000
165	Bentley College	37,189,000	45,096,000
166	Sweet Briar College	44,813,000	43,978,000
167	Spelman College	47,689,000	43,936,000
168	Allegheny College	39,906,000	43,836,000
169	Oregon State Board of Higher Education	41,049,000	43,548,000
170	Hendrix College [5]	46,367,000	42,868,000
171	University of Dayton	42,786,000	42,574,000
172	University of Hawaii	24,027,000	42,514,000
173	University of Denver	not reported	41,378,000
174	Centre College of Kentucky	42,031,000	40,797,000
175	Hartwick College	40,655,000	40,470,000
176	University of Illinois	39,856,000	39,186,000
177	Dickinson College	39,558,000	39,146,000
178	University of Puget Sound [1]	38,408,000	38,707,000
179	Arkansas College	not reported	38,497,000
180	Oregon Health Sciences U. Foundation	38,004,000	38,376,000
181	Randolph-Macon Woman's College	34,900,000	37,767,000
182	Alma College	37,623,000	37,714,000
183	Valparaiso University	35,546,000	37,563,000
184	North Carolina State University	33,603,000	37,522,000
185	Transylvania University	36,600,000	37,389,000
186	Baldwin-Wallace College	36,282,000	36,809,000
187	Birmingham-Southern College	36,334,000	36,684,000
188	Clarkson University	37,325,000	35,584,000
189	Wentworth Institute of Technology	not reported	35,446,000
190	Clark University [3]	36,507,000	35,103,000
191	Creighton University	33,087,000	34,810,000
192	Wheaton College (Mass.)	36,070,000	34,730,000
193	Kalamazoo College	33,169,000	34,499,000
194	Clemson University	30,734,000	33,513,000
195	Connecticut College	33,746,000	31,685,000
196	Buena Vista College	32,410,000	31,630,000
197	University of Mississippi	21,950,000	31,481,000
198	Louisville Presbyterian Theological Seminary [1]	not reported	30,096,000
199	Wayne State University	27,294,000	29,901,000
200	Washington and Jefferson College	31,777,000	29,864,000
201	Rider College	28,522,000	29,372,000
202	Gettysburg College [3]	30,914,000	29,200,000
203	Texas Tech University [1]	27,366,000	28,585,000
204	Seattle University	26,789,000	28,190,000
205	University of Akron	22,503,000	27,762,000
206	University of San Francisco [3]	23,774,000	27,603,000
207	Skidmore College	26,343,000	27,547,000
208	St. Olaf College [3]	27,071,000	27,398,000
209	Washburn Endowment Association	25,468,000	26,864,000
210	Lake Forest College [3]	21,926,000	26,762,000
211	Drake University [3]	19,857,000	26,411,000
212	Bryant College	28,196,000	26,110,000
213	Norwich University	25,740,000	25,994,000
214	Hahnemann University	17,824,000	25,946,000
215	DePaul University	25,468,000	25,831,000
216	Oregon State University Foundation	not reported	25,705,000
217	Loyola College (Md.)	25,130,000	25,642,000
218	Juniata College	21,032,000	25,398,000
219	Muhlenberg College	26,287,000	25,396,000
220	Illinois College	21,787,000	25,263,000
221	Chapman College [3]	$24,917,000	$25,144,000
222	University of Oregon Foundation	22,364,000	24,958,000
223	California Institute of the Arts	25,500,000	24,500,000
224	University of Maine System	22,289,000	23,991,000
225	Knox College	23,440,000	23,809,000
226	University of South Florida	16,442,000	23,446,000
227	Miami University	22,270,000	23,351,000
228	Marietta College	20,452,000	23,283,000
229	University of Redlands	not reported	23,213,000
230	Roanoke College	22,852,000	23,122,000
231	University of Alaska	not reported	22,996,000
232	Franklin College of Indiana	17,047,000	22,956,000
233	Saint Mary's College (Ind.)	22,770,000	22,838,000
234	University of Hartford	23,609,000	22,802,000
235	Babson College	27,681,000	22,644,000
236	Wells College	21,537,000	22,534,000
237	Cornell College	19,963,000	22,523,000
238	Bethany College (W.Va.)	26,027,000	22,257,000
239	Ball State University Foundation	not reported	21,329,000
240	Hope College	19,511,000	21,096,000
241	Pratt Institute [1]	27,752,000	20,906,000
242	St. John's College (Md.)	21,984,000	20,647,000
243	Lynchburg College	14,002,000	20,532,000
244	John Carroll University [3]	not reported	20,493,000
245	Medical College of Wisconsin	18,405,000	20,335,000
246	Alfred University	23,176,000	20,307,000
247	Bradley University [3]	18,465,000	20,174,000
248	Ohio Northern University	18,692,000	19,860,000
249	Rockhurst College	19,102,000	19,354,000
250	Randolph-Macon College	not reported	18,471,000
251	Oklahoma State University Foundation	not reported	18,381,000
252	New School for Social Research	not reported	18,274,000
253	Guilford College	not reported	18,158,000
254	University of Scranton [3]	18,163,000	18,100,000
255	Washington College	17,818,000	18,067,000
256	American University [4]	not reported	17,791,000
257	Canisius College	17,944,000	17,731,000
258	Bowling Green State University	7,393,000	17,689,000
259	Fairfield University	15,830,000	17,439,000
260	Saint Norbert College	17,512,000	17,311,000
261	Old Dominion University	not reported	17,281,000
262	Moravian College	16,700,000	16,401,000
263	U. of North Carolina at Greensboro	15,986,000	16,355,000
264	Xavier University (Ohio)	14,326,000	15,367,000
265	Salem College	16,647,000	15,240,000
266	Ripon College	14,617,000	15,137,000
267	Nazareth College of Rochester	14,754,000	14,849,000
268	Southwest Texas State University [1]	14,042,000	14,291,000
269	Mary Baldwin College	15,370,000	14,257,000
270	San Diego State University Foundation	12,063,000	13,613,000
271	Albright College	13,331,000	13,413,000
272	Elizabethtown College	13,272,000	13,199,000
273	Medical College of Pennsylvania	12,046,000	13,187,000
274	Marywood College	13,408,000	13,164,000
275	Morningside College [3]	12,458,000	13,107,000
276	Utah State University	10,856,000	12,854,000
277	Western Michigan University	10,063,000	12,787,000
278	Western Maryland College	11,048,000	12,306,000
279	Emporia State University	not reported	12,034,000
280	Otterbein College	not reported	12,016,000
281	Sarah Lawrence College [3]	11,530,000	12,003,000
282	Pitzer College	10,195,000	11,951,000
283	York College of Pennsylvania	11,486,000	11,795,000
284	Central University of Iowa [1]	12,227,000	11,735,000
285	Arizona State University	10,648,000	11,543,000
286	University of Rhode Island	11,650,000	11,271,000
287	New College Foundation	not reported	11,215,000
288	Suffolk University	12,153,000	11,190,000
289	University of Evansville [3]	9,932,000	11,137,000
290	King's College (Pa.)	not reported	11,000,000
291	Stephens College [3]	11,057,000	10,551,000
292	Madonna College	10,627,000	10,472,000
293	Memphis State University	3,280,000	10,223,000
294	Gannon University	not reported	8,099,000
295	Monmouth College (N.J.)	7,364,000	7,888,000
296	Russell Sage College	7,420,000	7,442,000
297	University of Medicine and Dentistry of New Jersey	8,820,000	6,729,000
298	University of Massachusetts	6,269,000	6,548,000
299	Bellarmine College [3]	6,384,000	6,544,000
300	St. John Fisher College [3]	5,533,000	6,272,000
301	College of New Rochelle	6,442,000	6,082,000
302	Grand Valley State University	not reported	5,968,000
303	University of South Carolina	4,293,000	5,768,000
304	Mount Mercy College	5,411,000	5,645,000
305	State U. of New York-Stony Brook Foundation	not reported	5,311,000
306	Widener University	not reported	5,202,000
307	Rosemont College	not reported	4,838,000
308	Saint Peter's College	3,439,000	3,881,000
309	Southern California College	2,692,000	3,798,000
310	Southwest Missouri State U. Foundation	not reported	3,155,000
311	East Tennessee State University	2,716,000	3,003,000
312	Kentucky Wesleyan College	2,781,000	2,656,000
313	State U. of New York-Potsdam College Foundation	not reported	2,533,000
314	Oakland University	2,672,000	2,410,000
315	Indiana University of Pennsylvania	1,539,000	1,646,000

Note: Table includes 315 institutions participating in the comparative-performance study by the National Association of College and University Business Officers.

[1] As of August 31, 1988
[2] As of September 30, 1988
[3] As of May 31, 1988
[4] As of April 30, 1988
[5] As of July 31, 1988

Private Grants and Gifts

PEW CHARITABLE TRUSTS
3 Parkway, Philadelphia 19102-1305

Facilities. For an international-studies center: $500,000 over three years to Middlebury College.

Faculty. For programs of faculty development: $1.8-million over three years to Christian College Consortium.

Forests. For research on the impact of climate change on northern temperate-forest reserves: $120,000 over two years to U. of California at Santa Barbara.

Governance. To develop a database to be used for comparative and strategic analysis by colleges and universities: $94,000 to Association of Governing Boards of Universities and Colleges.

Support. To add international issues to the undergraduate liberal-arts curriculum and for programs for minority-group students: $500,000 over three years to Eastern College.

—For programs in writing, language, and linguistics: $500,000 to Vassar College.

ALFRED P. SLOAN FOUNDATION
630 Fifth Avenue, New York 10111

Air travel. For a study of critical factors affecting air-passenger service and safety: $150,000 over two years to National Research Council.

Biography. For a biography of John von Neumann by Norman Macrae: $130,000 over two years to London School of Economics and Political Science.

Computers. For workshops and related activities as part of a software-dissemination project with International Business Machines Corporation: $60,000 each to Mount Holyoke College, Pomona College, Savannah State College, Spelman College, and Trinity College (Conn.).

Economics. For a research conference of young economists from the United States and Britain: $100,000 over three years to London School of Economics and Political Science.

—For a project on the political economy of international monetary cooperation: $375,000 over three years to Institute for International Economics.

Evolution. For postdoctoral fellowships in molecular studies of evolution: $80,500 each to California Institute of Technology, North Carolina State U. at Raleigh, U. of Rochester, and U. of Texas at Austin and $40,250 to U. of California at Berkeley.

Faculty. For a faculty workshop on negotiation analysis and game theory: $75,000 to Union College.

International issues. For a national conference on nuclear-war and peace courses: $30,000 to George Mason U.

Mathematics. For activities on the use of symbolic computation systems in undergraduate mathematics: $115,000 to Mathematical Association of America.

Science. For a symposium on frontiers of science: $30,000 to National Academy of Sciences.

TRW FOUNDATION
1900 Richmond Road, Cleveland 44124

Engineering. For a professorship in engineering and applied science: $750,000 to California Institute of Technology.

UPS FOUNDATION
51 Weaver Street, Greenwich Office Park 5, Greenwich, Conn. 06836

Student aid. For scholarships and financial aid: $52,560 to Associated Colleges of Illinois.

E. L. WIEGAND FOUNDATION
One East First Street, Reno 89501

Chemistry. For a gas chromatograph mass spectrometer for the chemistry department: $76,000 to U. of Dallas.

GIFTS AND BEQUESTS

Briar Cliff College. For the undergraduate research fund in chemistry: $40,000 from the estate of Kathleen Damme.

—For support of programs: $112,749 from the estate of Ellen E. Elkin.

East Texas Baptist University. Unrestricted gift of $100,000 from Mrs. Clifford Nelson Murphy.

Emory University. For scholarships in the school of law: $125,000 from LaBelle Birnbaum Tenenbaum.

Findlay College. For scholarships: $1.5-million from the estate of Ruth Corwin Eadly.

Lake Erie College. For the library: $1-million from the estate of Jane White Lincoln.

Lenoir-Rhyne College. For the capital campaign: $5-million from an anonymous donor and $2.5-million from the Harley F. Shuford, Sr., family.

Louisiana Tech University. For a professorship in the college of engineering: $600,000 from T. L. James and Company.

Rockhurst College. For the endowment: $1.2-million from the estate of Richard E. Powell.

Trinity College (Conn.). For the capital campaign: $1-million from George A. Kellner.

University of Akron. For the university's Wayne College: $56,638 from the estate of Mary Hecker.

University of Idaho. For the capital campaign: $50,000 from John and Joan Yudkisky.

University of Kansas. For a professorship in applied geophysics: $500,000 from Dean A. McGee.

University of Michigan. For a combined program in engineering, manufacturing, and business: $2.5-million from Ford Motor Company.

University of North Dakota. For scholarships and student loans in the school of medicine: $1-million from the estate of Ray Duggan.

University of Southern California. For research on cancers of the blood and bone marrow: $1.5-million from Bette P. Kaplan.